Research Article

Peer Support Perception Scale for gifted students: a scale development study

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Article Info

Abstract

The academic success of an gifted student at the junior high school level is contingent upon the peer support they receive. Peer support has a crucial role in enhancing the learning passion and concentration of gifted students on academic assignments. The development of the peer support perception scale aimed to evaluate the establishment of friendships that contribute to individuals' emotional and social development. These friendships are characterized by voluntary interactions that involve affection, the sharing of positive experiences, and mutual reciprocity. The four dimensions of the peer support perception scale encompass informational support, instrumental support, companionship support, and esteem support. The Likert approach was employed in the construction of the peer support perception scale. The primary aim of this study is to construct a peer support perception scale that demonstrates good validity and reliability. The employed methodology involved the utilization of Rasch analysis. The participants in this study consisted of 255 junior high school students who were identified as gifted. Validity instrument shown by data fit with Rasch model, the unidimensionality of the instrument is 39.8% and 20 item fit order. Reliability shown by Cronbach's alpha is 0.88, person reliability is 0.87, and item reliability is 0.98. Overall, it can be concluded that peer support perception scale have good valid and reliability so that it can be used to measure the peer support perception among gifted students of junior high school.

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Introduction

Peer support refers to a voluntary interpersonal relationship characterized by the exchange of affection, sharing of happiness, and reciprocal interactions, with the aim of cultivating friendships that positively influence individuals' emotional and social growth (Berndt, 2004). Adolescents exhibiting remarkable intellectual abilities necessitate companions who possess similar thoughts and attitudes in order to cultivate their social aptitude and obtain social assistance. During adolescence, exceptionally gifted adolescents often encounter the challenge of social exclusion by their peers. Individuals with a pronounced sense of independence often encounter difficulties in forming friendships, since they hold the belief that companionship with peers is unnecessary (Disti, 2006).

Berndt (2004) posits that during adolescence, friends play a crucial role in providing support through four distinct components. (1) Provision of evidence or substantiation for information. Social relationships have a significant role in providing individuals with guidance and support when faced with various interpersonal challenges, such as conflicts with friends, spouses, parents, or schools. Instrumental help refers to the provision of practical aid or support. Friendship entails providing assistance to individuals in various ways, including financial aid, academic support, and engagement in

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diverse activities. (3) Assistance from a companion. Individuals may depend on their peers for engaging in social activities such as participating in school events, embarking on excursions together, viewing films, engaging in recreational games, and even procuring refreshments from the school cafeteria. The provision of assistance or resources aimed at promoting and enhancing an individual's self-esteem. Peers have a crucial role in providing adolescents with emotional and practical assistance throughout favorable and unfavorable situations. In social circles, individuals engage in the act of celebrating their friends' achievements, while also providing emotional support and consolation in times of failure.

The influence of peers on talented children' motivation to engage in learning is significant. Baker et al. (2008) found that the learning activities of gifted students are highly influenced by the friends in their immediate social circles. Gifted students may exhibit reduced levels of enthusiasm for learning when they interact with peers who lack intrinsic motivation for academic pursuits. The inclination to conform to peer norms diminishes one's motivation to acquire knowledge. The association of students with peers who exhibit a lower level of motivation towards studying has a negative impact on their academic achievement.

According to Hill (2005), there is often a decline in the academic performance of gifted students as they transition to junior high school. The aspiration for intellectual achievement is often eclipsed by the aspiration for social acceptance. Hence, in order to maintain their motivation for learning and achieve academic success, gifted students require the assistance and encouragement of their other classmates.

A substantial body of research has provided evidence indicating that peer support exerts an influence on academic achievement (Gallardo et al., 2016). Previous research has established a correlation between peer selection and several educational outcomes, such as academic achievement, behavioral problems, and teacher engagement within the classroom (Benson et al., 2006; Rubin et al., 2006). Academic performance of students can be enhanced by selecting companions who prioritize and appreciate the value of education. In contrast, kids who select companions who are troublesome in nature are likely to experience a decline in academic performance and an increase in behavioral problems.

The selection of a peer group has an influence on the academic progress of gifted students. The academic achievements of gifted students may not receive priority if they lack encouragement from their peers. According to the research conducted by Reis and McCoach (2000), the academic performance of gifted students is significantly influenced by their peers. Approximately 66% of the academically gifted students reported perceiving a lack of support from their peers regarding their academic success. Gifted students often encounter the dilemma of navigating the tension between succumbing to peer influence and prioritizing their academic aspirations. According to Mawson (2002), gifted students demonstrate exceptional performance in separating themselves from the collective. During the onset of puberty at the age of 13, gifted students sometimes have conflicts arising from their need for peer recognition. Gifted students, particularly those possessing IQ scores exceeding 160, can encounter challenges in attaining social acceptability. When academically talented individuals are enrolled in traditional classroom settings, certain phenomena occur (Rimm, 2002).

The influence of peers on adolescents can be observed in three distinct domains: attitudes and values, social development, and social support (Eisenberg et al., 2006; Rubin et al., 2006). According to Kidron and Fleischman (2006), individuals within a social group engage in the exchange of viewpoints and shared beliefs in order to establish a collective understanding of moral judgments. The peer selection process has been found to have a significant impact on various aspects of the school environment, including teacher participation, disruptive conduct, and academic progress (Benson et al., 2006; Rubin et al., 2006). Research suggests that students are more likely to achieve higher academic performance when they select companions who prioritize and appreciate the significance of education.

Social Cognitive Theory

The necessity of peer support for gifted adolescents can be elucidated through the lens of social cognitive theory (Bandura, 1986; Bandura, 1999). The underlying foundation of this theory posits that the comprehension of human motivation, emotions, and acts is contingent upon the examination of social processes and cognitive processes. This theoretical framework conceptualizes human behavior as comprising several components within a model that interact with one another, including environmental factors and individual factors such as emotions and cognition. The social

cognitive model incorporates a causal model that encompasses triadic reciprocal causation. The triadic reciprocal causation model is a theoretical framework that encompasses three key elements that have an impact on human behavior: the environment (E), the individual (P), and the behavior (B) itself. According to Bandura, individual conduct is influenced by a combination of external influences and personal qualities.

The provision of social support to gifted students by their peers is a behavior that is influenced by both environmental factors and personal traits. Gifted students enrolled in specialized class programs benefit from an educational setting that fosters social connections among peers who possess similar cognitive abilities. The equitable cognitive state of talented students has a beneficial influence on their social interactions. Gifted students have a preference for friendships that offer various forms of assistance, including informational, instrumental, companionship, and affirmational support. Conversely, it has been observed that gifted students with an intelligence quotient (IQ) below 160 exhibit more favorable levels of social acceptance in relation to their personality traits (Rimm, 2002). Therefore, it is imperative for gifted students to receive social support from peers who possess particular attributes. During adolescence, gifted students engage in social interactions with their peers in order to satisfy their need for companionship and camaraderie.

Problem of Study

During the transition into puberty, gifted students encounter challenges in establishing social connections with their peers due to a discrepancy between their advanced cognitive abilities and relatively less developed social skills. For gifted adolescents, the period of junior high school can be characterized by feelings of isolation and solitude. It is imperative to provide gifted students with opportunity to interact with individuals of similar intellectual abilities. However, it is important to note that mere cognitive similarities do not guarantee mutual affinity. According to Cross (2016), it is imperative to provide explicit instruction in practical social skills, especially for exceptionally intelligent and accomplished gifted students. One essential aspect of interpersonal competence in life involves the ability to provide and receive social support from one's peers. Peer support refers to a voluntary exchange between two individuals, whereby they engage in affectionate interactions and share moments of delight. This reciprocal process fosters the formation of friendship, which in turn has a good impact on the emotional and social growth of the individuals involved.

There is a scarcity of measures available to assess the perception of peer support among gifted students in junior high school. To date, scholars investigating gifted students have employed interview and observation methodologies to ascertain the extent of peer support received by this particular group. The development of a peer support perception scale is crucial in order to address the measuring requirements associated with peer support for gifted students during their tenure at the junior high school level.

The process of scale development involves the creation of a measure that is both reliable and valid, with the purpose of assessing a specific attribute of interest. The objective of this study is to examine the extent to which the peer support perception scale, which has been established, meets the criteria for being a trustworthy instrument for measurement. The primary concern pertaining to this study revolves around the validity and reliability of utilizing the peer support perception scale among gifted junior high school students. The research aims to achieve the following objectives:

➢ To conduct an analysis of the validity instrument and validity items.
➢ To assess the reliability of items, the separation of items, the reliability of person, the separation of person, and the Cronbach's Alpha coefficient will be analyzed.

Method

Research Model

The deductive approach employed by the peer support perception scale involves the utilization of existing theories and conceptualizations of constructs to develop items that fall within the scale's scope. This methodology is pragmatic in situations where the definition of the construct is well-established and sufficiently comprehensive to facilitate the creation of an initial set of items. According to Hinkin (1995), the creation of the peer support perception scale can be divided into three distinct phases: item development, scale development, and scale evaluation. The process of item

development involves two primary components: identifying the relevant domain(s) and generating the initial collection of questions for a future scale, and evaluating the content validity of these questions. The second part of the study involves the building of a scale, which aims to transform individual items into a cohesive and measurable construct. This phase encompasses several steps, including pre-testing questions, sampling and survey administration, item reduction, and extraction of latent variables. The final stage of the review process, known as scale evaluation, encompasses a series of assessments including seven tests to measure dimensionality, eight tests to assess reliability, and nine tests to evaluate validity.

Participants

The population of this study was gifted students who were studying at junior high school. They were 7[th]grade students at an Islamic junior high school in Malang City, East Java, Indonesia. The research sample consisted of 255 gifted students aged 13 to 15 years. The number of male gifted students was 121 (47,451%), and female gifted students were 134 (52,549%)

Data Collection Tool

Peer Support Perception Scale

The theory put forth by Berndt (2004) was that peer support comprises four components: information support, instrumental assistance, companionship support, and esteem support. This was the foundation for the development of a peer support perception scale. There is one component containing five favorable items (see Table 1). The Likert scale was used to establish the scaling procedure, which involved categorizing replies according to their level of acceptability on a continuum. The scale used five responses: almost never, very rarely, sometimes, very often, and almost always. Each item has a score of 1 to 5 (see Table 2).

Table 1. Draft version of peer support perception scale for gifted students

Dimensions	Indicator	Item	Items
Information support	Delivering information	1,2,3,4,5	5
Instrumental support	Provide direct support	6,7,8,9,10	5
Companionship support	Make time	11,12,13,14,15	5
Esteem support	Motivating	16,17,18,19,20	5
Total			20

Data was collected by directly meeting the gifted students in class, then distributing the peer support perception scale in paper form, and asking the gifted students to fill in the peer support perception scale for 30 minutes. Scoring on a Likert-type scale is as follows; almost never 1 point, very rarely 2 points, sometimes 3 points, very often 4 points, almost always 5 points.

Data Analysis

Data were analyzed using the Rasch Model to determine validity and reliability. The Rasch model of measurement provides an effective method for preparing instruments with high validity and reliability because it performs comprehensive statistical analysis (Bond & Fox, 2015). The validity analyzed was instrument validity and item validity. The reliability analysis includes item reliability, item separation, person reliability, person separation, and Cronbach alpha.

The instrument's validity was assessed based on data fit to Rash, unidimensional models, and rating scale analysis. Data fit with the rash model is shown from Infit-Outfit Mean-Square (MNSQ) (range 0.5 - 1.5) and Infit-Outfit Z-Standardized (ZSTD) (range -2.0 - 2.0). Unidimensionality was shown in the raw variance explained by the measure of more than 20% and unexplained variance in the first contrast with an eigenvalue score of less than three and an observed score of less than 15%. Rating scale analysis is shown from the Andrich threshold index between 1.4 - 5.0 logit.

Item validity was assessed based on item outliers, Standard Error of Measure (SEM), and item fit order. Outlier items can be identified from logit items > 2SD and < 2SD. SEM shows the precision of items. If SEM > 1.0 logit indicates the item is inappropriate for measuring, and SEM < 0.5 logit indicates the item was appropriate for measuring. Item fit order

can be determined from Outfit MNSQ, ZSTD, and Point Measure Correlation value. If the Outfit MNSQ value was between 0.5 and 1.5, the Outfit ZSTD value was between -2.0 and 2.0, and the Point Measure Correlation value was between 0.4 and 0.85 (Sumintono & Widhiarso, 2015).

Reliability analysis includes item reliability, item separation, person reliability, person separation, and Cronbach alpha. According to Bond & Fox (2007), Cronbach's Alpha (α) acceptable reliability is between 0.71 - 0.99, and the best reliability is 71% - 99%.

Results

To determine the instrument's validity, it can be seen from the quality of the data obtained in this research that the test data must be in a fit condition for the Rasch Model. This can be seen from the MNSQ Infit-Outfit and ZSTD Infit-Outfit values. In Table 10, it is shown that the MNSQ Infit-Outfit values of the person are 1.01 and 0.99. The MNSQ Infit-Outfit values of the items are 0.99 and -0.14. The ideal MNSQ Infit-Outfit values are between 0.5 - 1.5. Based on the MNSQ infit-outfit values, the data obtained is fit following the Rasch Model. Fit data is also shown from the Infit-Outfit ZSTD values of the person and item. Infit-Outfit ZSTD of person are -0.16 and -0.20. Infit-Outfit ZSTD of the item is 0.99 and -0.13. The ideal ZSTD infit-outfit values are between -2.0 - 2.0. Based on the Infit-Outfit ZSTD values, the data obtained is fit following the Rasch model.

Table 2. Indicator of data fit to Rasch model

Person				Item				Interpretation
Infit MNSQ	Outfit MNSQ	Infit ZSTD	Outfit ZSTD	Infit MNSQ	Outfit MNSQ	Infit ZSTD	Outfit ZSTD	Data fit
1.01	.99	-.16	-.20	.99	-.14	.99	-.13	

The second indicator of instrument validity is unidimensionality. The issue of unidimensionality becomes very important in scale development. The definition of the construct to be measured is the basis for item development. All items are expected to relate to the construct in question and only this construct binds them. This is rationality in developing items. Based on this principle, the items included in a scale are expected to be able to unite differences in one basic construct. The phenomenon of unity of items and constructs explains unidimensionality. Unidimensionality was shown from the raw variance explained by measure where the score is 39.8% and unexplained variance in first contrast is 8.0%; it is not over the limit, which is 15%. See Table 3.

Table 3. Indicator unidimensionality of the peer support perception scale

Raw variance explained by measures	Unexplained variance in first contrast		Interpretation
	Observed	Eigenvalue	
39.9%	8.0%	2.8188	Unidimensional

The third indicator of instrument validity is rating scale analysis. This is shown by the Andrich threshold index between 1.4 - 5.0 logit. The scale of peer support perception has five response options for each item, namely almost never, very rarely, sometimes, very often, and almost always. Each response has a score between 1 and 5, see Table 3.

Table 4. Indicator for rating scale analysis

Index observed average	Index and rich threshold	Outfit MNSQ	Score of responses	Alternative responses
-0.53	none	1.14	1	Almost Never (AN)
-0.18	-1.3	0.98	2	Very Rarely (VR)
0.36	-1.0	0.92	3	Sometimes (S)
1.02	0.27	0.97	4	Very Often (VO)
1.86	2.02	1.01	5	Almost Always (AA)

Table 4 shows the observed average monotonically progress with categories. The observed average was in order and consistently increased monotonically (-0.53 < -0.18 < 0.36 < 1.02 < 1.86) across the step categories. This shows that,

overall, respondents with lower perceptions increasingly support lower step categories, while respondents with higher perceptions increasingly support higher step categories. The results of this analysis are in accordance with the criteria that the Outfit MNSQ value is lower than 2.0. Outfit MNSQ values range from 0.92 to 1.14 indicating that the data set provides more information with lower unexplained noise.

Besides instrument validity, Rasch model analysis provides information on item validity, assessed based on outlier items, Standard Error of Measure (SEM), and item fit order. Table 6 shows that based on the logit value, it is known that only one item has a logit > 2SD, namely item number 14. The SEM value for all items is > 0.5 logit. This means that all items are correct. The third indicator of item validity was item fit order, where the item fit order of all items corresponds to the MNSQ clothing value, ZSTD clothing value, and point gauge correlation value. MNSQ clothing scores range from 0.7 to 1.35; Outfit ZSTD value between -3.94 to 2.64; and the correlation value of the measuring points was between 0.46 to 0.63. Indeed, in the ZSTD outfit value, seven items exceed the limit, but the MNSQ value takes priority to see item fit orders. Based on the outlier values, SEM, outfit MNSQ, and point gauge correlation, it can be concluded that all items are valid items.

Table 6. Indicator of validity item

IN	Measure	SEM	Outfit MNSQ	Outfit ZSTD	PMC	Interpretation
15	1.01	.07	1.23	2.64	.57	valid item
7	.95	.07	1.18	2.10	.46	valid item
10	.64	.07	1.34	3.55	.52	valid item
1	.53	.07	.94	-.70	.55	valid item
17	.47	.07	1.16	1.79	.61	valid item
5	.31	.08	1.13	1.46	.50	valid item
18	.29	.08	1.24	2.49	.53	valid item
16	.29	.08	.91	-.98	.62	valid item
4	.10	.08	.68	-3.94	.61	valid item
6	.10	.08	.84	-1.84	.55	valid item
9	.06	.08	.99	-.04	.48	valid item
3	.05	.08	.74	-3.12	.60	valid item
19	-.23	.08	.91	-.92	.63	valid item
8	-.30	.08	.90	-1.05	.43	valid item
20	-.39	.08	.91	-.94	.51	valid item
12	-.43	.08	.98	-.14	.49	valid item
2	-.52	.09	.83	-1.91	.54	valid item
13	-.83	.09	1.35	3.21	.48	valid item
11	-.85	.09	.70	-3.39	.56	valid item
14	-1.24	.01	.91	-.81	.54	valid item
Mean	0.00	.08	.99	-.1		
P. SD	0.58	.01	.20	2.2		

IN: Item No **PMC**: Point Measure Correlation

Reliability analysis includes item reliability, item separation, person reliability, person separation, and Cronbach alpha. The results of the reliability analysis are shown in Table 7.

Table 7. Result of reliability analysis

	Reliability	Interpretation	Separation	Interpretation	Cronbach Alfa	Interpretation
Item	0.98	Very good	6.89	Very good	0.88	Very good
Person	0.87	Very good	2.56	good		

The greater the value of separation, the better because it can identify a wider group of subjects (able – unable) and a wider group of items (difficult – easy). The separation value for the items in Table 7 is 6.89, and the person is 2.56. This value is relatively high, indicating that the quality of the subject and instrument is quite good.

Discussion

The development of the peer support perception measure was grounded in Berndt's (2004) theoretical framework on peer support. The peer support perception measure encompasses four dimensions: information support, direct assistance support, friendship support, and appreciation support. Every component comprises a singular indicator, with each indicator encompassing five beneficial items. The Peer Support Perception Scale is comprised of 20 items that are assessed using a five-point Likert scale ranging from 1 (almost never) to 5 (almost always).

A psychological scale of high quality has the capacity to collect empirical data and provide accurate and detailed information. Rationally, the parameters for an effective assessment encompass unambiguous guidelines pertaining to the execution, evaluation, and comprehension of the test. Additionally, it is advantageous if a test provides efficiency in terms of the time and financial resources required for its administration, scoring, and interpretation. Primarily, an effective assessment should evaluate the intended construct it aims to assess. In addition to basic logical reasoning, assessment specialists employ technical criteria to judge the quality of tests and other measurement techniques. Test users frequently discuss the psychometric integrity of tests, with reliability and validity being two crucial dimensions of concern.

The assessment of any measurement instrument necessitates the consideration of validity and reliability, which are regarded as the most crucial and important characteristics. In the conventional sense, validity pertains to the extent to which a test accurately assesses the construct it is intended to evaluate, as outlined by Cattell (1946). The notion of validity has evolved from being a quality exclusive to measuring tests to becoming an evaluative statement regarding the interpretation of test scores (DeVon et al., 2007). The research conducted using the Rasch model has revealed that the instrument employed in the peer support perception scale demonstrates good validity. The aforementioned observation is supported by the data collected, which aligns with the Rasch model. The instrument's validity is further demonstrated by the unidimensionality of the peer support perception scale. According to Fischer (1997), even if all items assess the same processes to the same extent, they can nevertheless be regarded as unidimensional. This statement suggests that the items on the peer support perception scale are measuring a common underlying construct. In addition to the appropriateness of the data for the Rasch model and the presence of unidimensionality, the validity of the instrument was established through the utilization of rating scale analysis. The findings derived from the study of the rating scale indicate that the utilization of five distinct alternative replies is effective in distinguishing individuals with contrasting levels of perceived friend support. Individuals who have a strong perception of support from their friends tend to select a response option that receives a high score. On the other hand, those who perceive assistance to be lacking tend to select a response option that is associated with a lower score.

In addition to assessing instrument validity, the Rasch model examines the validity of individual items through the identification of item outliers, the calculation of the Standard Error of Measure (SEM), and the evaluation of item fit order. The peer support perception scale initially consisted of 20 items. However, after conducting an analysis, certain items were preserved based on their ability to meet the criteria for indicating item validity. According to the outlier indicator, there was a single item that over the established threshold. However, this particular item does not possess sufficient significance to warrant its exclusion, since it adheres to both the criteria of the standard error of measurement and the item fit order. The items of the peer support perception scale align with the intended measuring objectives.

A psychological scale of high quality encompasses not only the presence of instrument validity and item validity, but also relies on empirical data to substantiate its reliability. The utilization of the Rasch model for analysis will yield several forms of dependability, including item reliability, item separation, person reliability, person separation, and Cronbach alpha. The high level of reliability exhibited by both the item and the person indicates its classification as being of excellent quality. The concept of item reliability indicates that an item possesses the ability to consistently measure a given variable. The concept of person dependability pertains to the extent to which respondents consistently supply responses that align with the established model. The categorization of things and individuals distinguishes several clusters of commodities and individuals. The peer support perception scale exhibits a notable degree of item and person

clustering, with items organized into seven groups and individuals categorized into three groups. There is a positive correlation between an individual's level of detachment and their impression of peer support on a larger scale. Every item on the scale has the potential to elicit responses from individuals, regardless of whether they experience a high or low amount of peer support.

In the context of this study, the concept of item separation pertains to the extent to which the measured sample is distributed across a linear interval scale. A positive correlation exists between item separation and measurement performance, indicating that higher levels of item separation are associated with improved measurement outcomes. The purpose of this index is to facilitate the identification of the significance or meaningfulness of the concept that is being measured. In the present study, the Cronbach's alpha coefficient was computed to assess the internal consistency of the perceived peer support scale. The results indicate that the scale exhibits a high level of consistency, suggesting that the items within the scale consistently measure the construct of interest across different individuals.

Conclusion

The high instrument validity of the peer support perception scale is evidenced by its adherence to the Rasch model, the fulfillment of unidimensionality, and the effective functioning of rating scale analysis. The peer support perception scale items exhibit a high level of validity, as seen by the presence of only one outlier item, the fulfillment of the Standard Error of Measure (SEM) indicator, and the item fit order. The peer support perception scale consists of a total of 20 valid items. The peer support perception scale measure exhibited very good reliability, as evidenced by the analysis of item reliability, item separation, person dependability, and Cronbach's alpha. As for person separation, it is classified as good.

Limitations of Study

The peer support perception scale was tested on gifted students of junior high school at Islamic schools in Malang, Indonesia. Researchers think it would be better if this scale were tested in various schools with various characteristics.

Acknowledgment

References

Baker, J. Grant, S., & Morlock, L.(2008). The teacher–student relationship as a developmental context for children with internalizing or externalizing behavior problems. *School Psychology Quarterly, 23*(1), 3–15. https://doi.org/10.1037/1045-3830.23.1.3

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1999). A social cognitive theory of personality. In L. Pervin & O. John (Ed.), *Handbook of personality* (2nd ed., pp. 154–196). New York: Guilford Publications. (Reprinted in D. Cervone & Y. Shoda (Ed.), The coherence of personality. New York: Guilford Press.)

Benson, M. J., McWey, L. M., & Ross, J. J. (2006). Parental attachment and peer relations in adolescence: A meta-analysis. *Research in Human Development, 3*(1), 33–43. https://doi.org/10.1207/s15427617rhd0301_4

Berndt, T.J. (2004). Children's friendships: Shifts over a half-century in perspectives on their development and effects. *Merrill-Palmer Quarterly, 50* (3), 206-223

Bond, T. G., & Fox, C. M. (2015). *Applying the Rasch Model: Fundamental measurement in the human sciences* (3rd ed.). Routledge/Taylor & Francis Group.

Cattell, R. B. (1946). *Description and measurement of personality.* World Book Company.

Cross, J. R. (2016). Gifted children and peer relationships. In M. Neihart, S. I. Pfeiffer, & T. L. Cross (Ed.), *The social and emotional development of gifted children: What do we know?* (pp. 41–54). Prufrock Press Inc.

DeVon, H. A., Block, M. E., Moyle-Wright, P., Ernst, D. M., Hayden, S. J., Lazzara, D. J. et al. (2007). A Psychometric Toolbox for Testing Validity and Reliability. *Journal of Nursing Scholarship, 39* (2), 155–164.

Distin, K. (2006). *Gifted children: A guide for parents and professionals.* London: Jessica Kingsley Publishers.

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial Development. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Social, emotional, and personality development* (pp. 646–718). John Wiley & Sons, Inc.

Fischer, G. (1997). Unidimensional linear logistic Rasch models. In W. van der Linden & R. Hambleton (Ed.), *Handbook of modern item response theory* (pp. 225–243). New York: Springer.

Gallardo, L.O., Barrasa, A. & Guevara-Viejo, F. (2016). Positive peer relationships and academic achievement across early and mid-adolescence. *Social Behavior and Personality, 44,* 1637–1648.

Hill, J. (2005). *Understanding underachievement of gifted student: Insights and implications*. USA: University of Georgia

Hinkin, T.R. (1995). A review of scale development practices in the study of organizations. *J Manag, 21* (5), 967–988. doi: 10.1016/0149-2063(95)90050-0

Kidron, Y., & Fleischman, S. (2006). Promoting Adolescents' Prosocial Behavior Educational Leadership. *Research Matters, 63*, 90-91

Mawson, J. (2002). Gifted education: Why does it matter?. *A Peer Reviewed Journal*, 4, 1-4

Reis, S.M., & McCoach, D.B., (2000). The underachievement of gifted students: What do we know and where do we go? *Gift Child Quarterly, 44* (3), 152-170

Rimm, S. (2002). Peer pressures and social acceptance of gifted students. In M. Neihart, S. M. Reis, N. M. Robinson, & S. M. Moon (Eds.), *The social and emotional development of gifted children: What do we know?* (pp. 13–18). Prufrock Press Inc.

Rubin, K. H., Bukowski, W. M., & Parker, J. G. (2006). Peer Interactions, Relationships, and Groups. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Social, emotional, and personality development* (pp. 571–645). John Wiley & Sons, Inc

Sumintono, B & Widhiarso, W. (2015). *Aplikasi pemodelan rasch pada assessment pendidikan (Application of Rasch modeling to educational assessment)*. Cimahi: Trim Komunikata Publishing House

Appendix 1. Peer Support Perception Scale for Gifted (Indonesian Language)

No	Items	1	2	3	4	5
**Skala Persepsi Dukungan Sebaya untuk Berbakat**						
	1 sangat jarang, 2 jarang, 3 kadang-kadang, 4 sangat sering, 5hampir selalu					
1	Teman saya mengingatkan untuk mengerjakan PR					
2	Teman saya memberi informasikegiatan sekolah					
3	Teman saya menjelaskan materi pelajaran yang tidak sayamengerti					
4	Teman saya memberikan informasi yang saya butuhkan untuk memecahkan masalah					
5	Teman saya memberikan informasi tentang media sosial yang digunakan					
6	Teman saya membantu saya menyelesaikan tugas sekolah					
7	Teman saya membagikan bekal makannya					
8	Teman saya meminjamkan alat tulisnya					
9	Teman saya meminjamkan buku pelajarannya					
10	Teman saya meminjamkan uangnya ketika saya membutuhkan					
11	Teman saya bersedia berdiskusi dengan saya					
12	Teman saya mengerjakan tugas bersama saya					
13	Teman saya pergi ke kantin bersama saya					
14	Teman saya menemani saya ngobrol jika ada waktu					
15	Teman saya bersedia menghabiskan waktu libur bersama saya					
16	Teman saya mengucapkan selamat ketika saya mendapat nilai yang bagus					
17	Teman saya mengingatkan saya untuk tetap semangat ketika hasil belajar saya menurun					
18	Teman saya mengingatkan kelebihan yang saya miliki					
19	Teman saya menghibur saya ketika saya mempunyai masalah					
20	Teman saya menghargai pendapat saya					

Appendix 2. Peer Support Perception Scale for Gifted (English Language)

No	Items	1	2	3	4	5
Peer Support Perception Scale for Gifted						
1 almost never, 2 very rarely, 3 sometimes, 4 very often, 5 almost always						
1	My friends remind me to do my homework					
2	My friends gave me information about school activities.					
3	My friends explained the material from the lesson, but I do not understand					
4	My friends provide the information I need to solve a problem.					
5	My friends provide me with information about the social media they use					
6	My friends help me with schoolwork.					
7	My friends share their lunch.					
8	My friends lend me their stationery.					
9	My friends lent me their textbooks.					
10	My friends lend me money when I need it.					
11	My friends are willing to discuss it with me.					
12	My friends do homework with me.					
13	My friends go to the canteen with me.					
14	My friends accompany me to chat when we have time.					
15	My friends are willing to spend time off together with me.					
16	My friends congratulate me when I have got a good grade.					
17	My friend reminded me to stay enthusiastic when my learning results were declining					
18	My friends remind me of the strengths I have					
19	My friends cheer me up when I have a problem.					
20	My friends sincerely value my opinion.					